

CLAIMS

1. A mobile camera telephone comprising:
a camera module for capturing an image and providing digital data in an RAW
5 format; and
an application processor including a CPU for controlling the operation of the
telephone and hardware arranged to perform camera image processing on the
digital data in RAW format received from the camera module.
- 10 2. A mobile camera telephone as claimed in claim 1, wherein the camera module
comprises optics, an image sensor and an analogue to digital converter only, and
is without image processing facility.
- 15 3. A mobile camera telephone as claimed in claim 1 or 2, wherein the digital data
is the digitized output of an image sensor.
4. A mobile camera telephone as claimed in claim 1 wherein the camera module
comprises reducing means for reducing the size of the provided digital data.
- 20 5. A mobile camera telephone as claimed in claim 4, wherein the reducing means
involves bit depth reduction.
- 25 6. A mobile camera telephone as claimed in claim 4 or 5, wherein the reducing
means involves lossless compression and the application processor includes
means for lossless decompression before image processing.
- 30 7. A mobile camera telephone as claimed in any one of claims 1 and 4 to 6,
wherein the camera module further comprises means for predetermined and
limited image processing.
8. A mobile camera telephone as claimed in any one of claims 1 and 4 to 7,
wherein the camera module further comprises gamma correction means for

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gamma correcting the digital data before its provision to the application processor.

5 9. A mobile camera telephone as claimed in any one of claims 1 and 4 to 8, wherein the application processor performs camera image processing excluding gamma correction.

10 10. A mobile camera telephone as claimed in any one of claims 1 and 4 to 6, wherein the application processor is a system on a chip.

11. A mobile camera telephone as claimed in any preceding claim, wherein the application processor includes a hard-wired pipeline processor for camera image processing.

15 12. A mobile camera telephone as claimed in any preceding claim, wherein the application processor includes a programmable hardware accelerator.

20 13. A mobile camera telephone as claimed in claim 12, wherein the programmable hardware accelerator is a SIMD processing accelerator optimized for camera image processing.

14. A method of recording an image using a mobile camera telephone comprising the steps of:

25 capturing an image in a first camera component of the mobile camera telephone sending digital data in an RAW format from the first camera component to a second application processing component of the mobile camera telephone; and, in the second application processing component, both image processing the digital data in RAW format to produce an image for viewing and controlling the storage of that image in the telephone.

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